Listing of the Claims

- 1. (Original) A method of screening compounds suspected of being skin irritants, comprising:
 - a) providing
 - i) a compound suspected of being a skin irritant;
 - ii) a skin equivalent comprising a irritant responsive reporter gene construct; and
 - b) contacting said skin equivalent with said compound; and
 - c) measuring the level of gene expression from said reporter gene construct, wherein increased expression from said reporter gene construct is indicative of a response to said irritant.
- 2. (Original) The method of Claim 1, wherein said human skin equivalent has a surface electrical capacitance of from about 80 to about 120 pF.
- 3. (Original) The method of Claim 1, wherein the content of ceramides 5, 6, and 7 in said skin equivalent is from about 20 to about 50% of total ceramide content.
- 4. (Original) The method of Claim 1, wherein the content of ceramide 2 in said skin equivalent is from about 10 to about 40% of total ceramide content.
- 5. (Original) The method of Claim 1, wherein said skin equivalent comprises keratinocytes selected from the group consisting of primary keratinocytes and immortalized keratinocytes.

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- 6. (Original) The method of Claim 5, wherein said immortalized keratinocytes are NIKS cells.
- 7. (Original) The method of Claim 1, wherein said keratinocytes express heterologous Kruppel-like factor 4.
- 8. (Currently amended) The method of Claim 1, wherein said irritant responsive reporter construct comprises at least a portion of a gene a promoter selected from the group consisting of interleukin-8 and interleukin- 1α promoters.
 - 9 24. (Canceled)